

ABSTRACT OF THE DISCLOSURE

A memory device addressing reliability and refresh characteristics through the use of a multilayered doped conductor, and a method making are disclosed. The multilayered doped conductor creates a high dopant concentration in the active area close to the channel region. The rich dopant layer created by the multilayered doped conductor is less susceptible to depletion from trapped charges in the oxide. This improves device reliability at burn-in and lowers junction leakage, thereby providing a longer period between refresh cycles.